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## Access to the General Curriculum: Questions and Answers

**Q** 1. What is the connection between access to the general curriculum (IDEA '97) and Universal Design for Learning?

**A** Each learner, with or without an identified disability, presents a unique pattern of skills, weaknesses, interests, and needs. The Individuals with Disabilities Education Act '97 (IDEA) cites the need to adjust various aspects of curriculum and instruction to meet these individual differences of children with disabilities and thus ensure access to the general curriculum; yet traditional curriculum materials and methods are not inherently adjustable.

The most practical and affordable way to implement the requirements of IDEA is to provide materials that are flexible, and thereby accessible to different learners. Because learning is not just a question of access to materials, clear strategies for adjusting learning goals, teaching methods and materials, and assessment methods, as well as professional training in individualizing learning, are also necessary.

The Universal Design for Learning (UDL) approach uses the inherent flexibility of digital media and networks to fashion tools, content, and instructional approaches that support individualized learning. The cornerstone of Universal Design for Learning is flexibility. Thus UDL concepts form the basis for the development of adjustable materials, instructional approaches, assessment methods, and professional development that can meet IDEA's call for access to the general curriculum for students with disabilities.

**Q** 2. How has the IDEA mandate for access to the general curriculum changed the role of the special educator?

**A** Traditionally, the role of the special educator has been distinct from the role of the regular education teacher, focusing on remedial instruction of skills rather than on curricular content, often in a separate physical setting. Both IDEA and Universal Design for Learning support a new role for special educators.

Because IDEA mandates maximizing access to the general curriculum and the attainment of goals connected to curriculum standards for students with disabilities, special educators need to work collaboratively with regular educators to customize the general curriculum to meet the needs of students with disabilities. Not coincidentally, special educators may also collaborate with regular educators to customize goals, materials, methods, and assessment for students without identified disabilities. Each learner has unique strengths, weaknesses, interests, and needs, and the skills of the special educator can assist the regular educator in helping all students reach curricular goals.

**Q** 3. What are the differences between assistive technology and Universal Design for Learning?

**A** Children with physical or language disabilities may need properly designed wheelchairs, adaptive switches to control their environment, speech synthesizers, and other assistive devices. Assistive technologies will always have a role in the education of learners with disabilities, and Universal Design for

Learning will not eliminate the need for personal assistive devices and services.

However, exclusive emphasis on assistive technologies may place the burden of adaptation on the learner, not the curriculum. The idea that students must procure or "be prescribed" special individual tools whenever they cannot use standard curricula may limit learning opportunities. Relying exclusively on print-based tools and methods, uncaptioned videos, software, images and posters that lack text descriptions may be limiting for many children with disabilities.

UDL curriculum materials assume diverse learner goals, learner profiles, and assessment methods, and therefore are designed with flexibility as the keystone. UDL materials offer options to transform content presentation and provide redundant, multimedia presentation; options for varied learning supports and modes of student expression; and varied means of building student engagement. Instead of one assumed standard with variations, variations comprise the standard.

As Universal Design for Learning becomes viable and pervasive, the power of assistive technology can be devoted to providing more efficient interaction with a curriculum that is already access-aware. For those students who need it, assistive technology will enhance interaction with a curriculum that has been designed at the outset to be accessible to all.

**Q 4. Where are there guidelines for increasing the accessibility of curricula?**

**A** Various organizations, such as the TRACE Center [www.tracecenter.org] at the University of Wisconsin, the Web Accessibility Initiative (WAI) [www.w3.org/WAI], CPB/ WGBH National Center for Accessible Media [ncam.wgbh.org], and the Center for Applied Special Technology (CAST) [www.cast.org/bobby] have been developing guidelines and tools to support physical access to electronic curricula and media. Good examples of curricular adaptations for physical disabilities can be found through two companies: Intellitools [www.intellitools.com] and Don Johnston, Inc. [www.donjohnston.com/].

Guidelines for cognitive access are less well developed. The National Center to Improve the Tools of Educators (NCITE) (see below) has provided a good summary of research-based modifications for students with cognitive disabilities within traditional media. CAST is applying the Universal Design for Learning framework to the development of guidelines for the kinds of flexibility needed to support cognitive access to the general curriculum as it becomes more available in digital format [www.cast.org/udl].

To support cognitive access for diverse learners, teachers and curriculum developers need to individualize all aspects of instruction and provide scaffolds to support cognitive difficulties. While a great deal more research is needed, a few examples of cognitive supports are as follows:

- Providing "multiple representations" is one key way to increase access for many students. MathPad, from Intellitools [www.intellitools.com] is a good example. It creates a workspace for doing

mathematical computations (like adding or subtracting) that displays the math simultaneously or sequentially in several representations, e.g., in numbers and images or graphs. This can be extremely helpful for students with various learning disabilities. As an added strength, the program is accessible to students with physical disabilities as well.

- Providing "multiple means of expression" is another key way to increase both physical and cognitive access. In the program "Write Outloud" [www.donjohnston.com/catalog/catalog.htm] by Don Johnston, students with many kinds of writing difficulties find supportive scaffolds that help them express what they know or think. Write Outloud is a simple word processor, but it is a talking word processor, and there are features like word prediction that allow students for whom typing is laborious (students with physical disabilities) or spelling is difficult (students with dyslexia) to express themselves competently and efficiently.
- The NCITE group at the University of Oregon [http://idea.uoregon.edu/~ncite/] has gathered together examples of research-based modifications to support cognitive access. They emphasize six features in particular:
  1. Focus on Big Ideas
  2. Present Conspicuous Strategies
  3. Provide Mediated Scaffolding
  4. Support Strategic Integration
  5. Prime Background Knowledge
  6. Initiate Judicious Review

A full discussion of these strategies can be found in the book, *Effective Teaching Strategies That Accommodate Diverse Learners* by Edward Kameenui and Douglas Car-nine.

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